



6560-50-P

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R05-OAR-2015-0366; FRL-9948-21-Region 5]**

**Air Plan Approval; Minnesota; Sulfur Dioxide**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Direct final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is approving a revision to the Minnesota sulfur dioxide (SO<sub>2</sub>) State Implementation Plan (SIP) for the Flint Hills Resources, LLC Pine Bend Refinery (FHR) as submitted on May 1, 2015. The revision will consolidate existing permanent and enforceable SO<sub>2</sub> SIP conditions into the facility's joint Title I/Title V SIP document. This action highlights process modifications necessary to meet EPA's Tier 3 gasoline sulfur standards; a comprehensive monitoring strategy to better quantify SO<sub>2</sub> emissions from fuel gas-fired emission units; a new restrictive flaring procedure for refinery process units, and other updates and administrative changes. This revision results in a modeled reduction in SO<sub>2</sub> emissions from FHR and modeled SO<sub>2</sub> ambient air concentrations less than half of the national ambient air quality standards (NAAQS).

**DATES:** This direct final rule will be effective **[insert date 60 days after date of publication in the Federal Register]**, unless

EPA receives adverse comments by **[insert date 30 days after date of publication in the Federal Register]**. If adverse comments are received, EPA will publish a timely withdrawal of the direct final rule in the Federal Register informing the public that the rule will not take effect.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R05-OAR-2015-0366 at <http://www.regulations.gov> or via email to [blakley.pamela@epa.gov](mailto:blakley.pamela@epa.gov). For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the "For Further Information Contact" section. For the full EPA public comment policy, information about CBI or multimedia

submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** Anthony Maietta, Environmental Protection Specialist, Control Strategies Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 353-8777, [maietta.anthony@epa.gov](mailto:maietta.anthony@epa.gov).

**SUPPLEMENTARY INFORMATION:** Throughout this document whenever “we,” “us,” or “our” is used, we mean EPA. This supplementary information section is arranged as follows:

- I. What is the background for this action?
  - A. EPA’s Tier 3 Gasoline Standards
  - B. Administrative Order and Title I SO<sub>2</sub> SIP Conditions
- II. What is EPA’s analysis of the SIP revision?
  - A. EPA’s Tier 3 Gasoline Standards
  - B. Administrative Order and Title I SO<sub>2</sub> SIP Conditions
  - C. Miscellaneous revisions
- III. What action is EPA taking?
- IV. Incorporation by reference.
- V. Statutory and Executive Order reviews.

**I. What is the background for this action?**

**A. EPA’s Tier 3 Gasoline Standards**

On April 28, 2014 (79 FR 23414 and amended on April 22, 2016, at 81 FR 23641), EPA established more stringent vehicle

emissions standards to reduce the sulfur content of gasoline beginning January 1, 2017. The Tier 3 gasoline fuel standards (Tier 3 standards) will reduce both tailpipe and evaporative emissions from both new and existing passenger cars, light-duty trucks, medium-duty passenger vehicles, and some heavy-duty vehicles. This will result in significant reductions in pollutants such as ozone, particulate matter, and air toxics across the country and help state and local agencies in their efforts to attain and maintain health-based NAAQS.

In order to meet the Tier 3 standards, FHR plans to increase its use of hydrotreating to remove sulfur from intermediate fuel products. The increased hydrotreating will also increase the removal of nitrogen. To address the increased removal of nitrogen and sulfur, FHR proposes to install a process to convert gas containing sulfur and nitrogen into a salable, non-hazardous, aqueous liquid fertilizer: ammonium thiosulfate (ATS).

#### **B. Administrative Order and Title I SO<sub>2</sub> SIP Conditions**

Minnesota also requested EPA's approval of the transfer of Title I SO<sub>2</sub> SIP conditions from an Administrative Order (Order) into the FHR Title I/Title V SO<sub>2</sub> SIP document. Until 1990, Minnesota Pollution Control Agency (MPCA) had placed SIP control measures in permits issued to culpable sources. In 1990, EPA determined that limits in state-issued permits were not

federally enforceable because the permits expired.

Subsequently, MPCA then issued permanent Orders to affected sources in nonattainment areas from 1991 to February of 1996.

In 1995, EPA approved into the Minnesota SIP Minnesota's consolidated permitting regulations. (60 FR 21447, May 2, 1995). The consolidated permitting regulations included the term "Title I condition" which was written, in part, to satisfy EPA requirements that SIP control measures remain permanent. A "Title I condition" is defined, in part, as "any condition based on source-specific determination of ambient impacts imposed for the purpose of achieving or maintaining attainment with a national ambient air quality standards and which was part of a [SIP] approved by the EPA or submitted to the EPA pending approval under section 110 of the act . . . ." MINN. R. 7007.1011 (2013). The regulations also state that "Title I conditions and the permittee's obligation to comply with them, shall not expire, regardless of the expiration of the other conditions of the permit." Further, "any title I condition shall remain in effect without regard to permit expiration or reissuance, and shall be restated in the reissued permit." MINN. R. 7007.0450 (2007).

Minnesota has initiated using the joint Title I/Title V document as the enforceable document for imposing emission limitations and compliance requirements in SIPs. The SIP

requirements in the joint Title I/Title V document submitted by MPCA are cited as "Title I conditions," therefore ensuring that SIP requirements remain permanent and enforceable. EPA reviewed the state's procedure for using joint Title I/Title V documents to implement site-specific SIP requirements and found it to be acceptable under both Title I and Title V of the Clean Air Act (CAA) (July 3, 1997 letter from David Kee, EPA, to Michael J. Sandusky, MPCA).

FHR's SIP obligations are currently contained in an Order that was adopted by MPCA on August 29, 2011, and approved by EPA on May 15, 2013 (78 FR 28501) (FHR Order). On May 1, 2015, MPCA submitted revisions to the Minnesota SO<sub>2</sub> SIP for FHR. MPCA requested that EPA approve into the SIP, the Title I SO<sub>2</sub> SIP conditions contained in the joint Title I/Title V document while removing the FHR Order from the SIP. In addition to incorporating FHR's current SO<sub>2</sub> SIP obligations into the facility's joint Title I/Title V document, MPCA requested approval of additional changes to the Minnesota SO<sub>2</sub> SIP.

## **II. What is EPA's analysis of the SIP revision?**

### **A. EPA's Tier 3 Gasoline Standards**

Title I SO<sub>2</sub> SIP conditions have been created for the ATS process unit, which include hourly and annual emissions limits, as well as monitoring, record keeping, and reporting requirements for the ATS process unit. The ATS unit will take

H<sub>2</sub>S and ammonia from sour water streams and convert them into ATS, which will then be sold as fertilizer. The unit is being constructed in conjunction with FHR's plan to meet EPA's Tier 3 fuel standards. The ATS unit will allow FHR to utilize the increased amounts of sulfur and nitrogen removed from intermediate fuel products by gas-oil hydrotreaters by combining them into ATS.

Review of the technical support document and computer modeling reports submitted by MPCA shows that installation of the ATS unit in conjunction with the other updates to the facility will not cause an exceedance of the modeled SO<sub>2</sub> standards. The data show that SO<sub>2</sub> emissions will be between 6 and 8 percent less than emissions from the facility modeled under the last SIP revision. Using AERMOD and including FHR and nearby sources, the modeled ambient air concentrations of SO<sub>2</sub> for the 3-hour, 24-hour, and annual SO<sub>2</sub> NAAQS for these revisions are at 41.5%, 48.5%, and 27.5% of the standards, respectively. Therefore, the addition of Title I SO<sub>2</sub> SIP requirements for the ATS unit is acceptable and the revisions to the FHR SIP are approvable.

#### **B. Administrative Order and Title I SO<sub>2</sub> SIP Conditions**

On March 17, 2015, MPCA amended the operating permit for FHR (Air Emissions Permit No. 03700011-012). This joint Title I/Title V document incorporates, as Title I SO<sub>2</sub> SIP conditions,

FHR's SIP obligations which had previously been listed in the FHR Order. This is approvable because those conditions have already been approved into Minnesota's SO<sub>2</sub> SIP and are merely being moved into the FHR joint Title I/Title V document to provide the source with a single enforceable document. Upon the effective date of EPA approval of the Title I SO<sub>2</sub> SIP conditions into the FHR SIP, the Order will be revoked as stipulated in a May 1, 2015, Administrative Order from MPCA. As part of this action, EPA is approving the revocation of the Order from the Minnesota SO<sub>2</sub> SIP.

### **C. Miscellaneous revisions**

Finally, Minnesota is requesting that EPA approve several changes to the existing SIP for FHR. These changes include:

- Changing "company" to "permittee" which is acceptable because moving the pertinent Title I SO<sub>2</sub> SIP conditions from the Order to the FHR permit means the term to describe FHR would change to reflect the move.

- Amendments to allow the use of ultra-low sulfur diesel, which can be considered fuel oil, to be combusted at FHR. This revision clarifies the rule, and is acceptable.

- Removing operating hour limits on diesel powered units because, with the availability of ultra-low sulfur diesel, these units qualify as insignificant sources of SO<sub>2</sub>. Therefore the operating



hours limits on these units are no longer required. This revision is approvable.

-Inclusion of the phrase "in conjunction with oxidation gases from OSWTP equipment" to indicate that the oil separation and waste treatment plant gases, which are allowed to be combusted from one oxidizer at a time, are able to be combusted along with natural gas. This amendment merely clarifies the requirement, and is acceptable.

-Changing 'continuous monitoring system (CMS)' to 'continuous emission monitoring system (CEMS)', and by adding a total sulfur CEMS on the 45-unit mix drum as an operating condition. The revision and addition are approvable because they clarify the rule language, and the addition of the CEMS on the 45-unit mix drum helps FHR more accurately quantify the sulfur emissions from the unit.

-Inclusion of more restrictive language that indicates the flare system is to be used only for unplanned and infrequent events resulting from malfunctions. The amended language also excludes flaring gases from normal operation, including gases from scheduled startups and shutdowns of refinery process units. This amendment is acceptable since it clarifies the condition's applicability and creates more stringent conditions for flare use at FHR.

-Removing the Merox process incinerator from the Title I SO<sub>2</sub> SIP conditions because the Merox process incinerator was decommissioned and removed. The removal of the unit was approved by EPA in a prior rulemaking (78 FR 28501). The conditions were also amended to add the new ATS unit, which will be discussed in more detail later in this document. These revisions are acceptable because SO<sub>2</sub> emissions will be reduced at the facility as a result of these changes.

-Replacing the phrase "total reduced sulfur CMS" with "reduced sulfur and total sulfur CEMS," reflecting the more comprehensive fuel gas sulfur continuous emission monitoring system installed at the facility. This revision is approvable.

-Replacing the acronym "CMS" with "CEMS," which is approvable because it clarifies that the acronym stands for a continuous emission monitoring system. Continuous monitoring requirements were also amended to include language to show that FHR will maintain a CEMS for the 45-unit mix drum that will measure total sulfur from the mix drum fuel gas stream, and that the CEMS will provide a continuous record of measurement in parts per million. This revision is approvable because it ensures that the 45-unit mix drum will be comprehensively monitored for sulfur emissions. Lastly, this section was revised to clarify the list of fuels that would require contract guarantees for H<sub>2</sub>S and heat content

for compliance demonstration purposes, which is approvable because it clarifies the requirement for the facility.

-Updating the language of the quarterly reporting requirements to reflect current emissions monitoring and report submittal requirements. This revision is acceptable because it clarifies what FHR must submit in its reporting to MPCA.

-Throughout the joint document, the term "the Company" has been replaced with "the Permittee" which is acceptable because it reflects the location of FHR's Title I SO<sub>2</sub> SIP conditions within the joint document instead of within Orders.

-In the portions of the joint document dealing with continuous monitoring requirements and recordkeeping requirements, references to the term "hydrogen sulfide" have been replaced with "sulfur content" to reflect the more comprehensive monitoring strategy approved for FHR.

-Requirements for fuel gas SO<sub>2</sub> emissions from the 41- and 45-unit mix drums have been made Title I SO<sub>2</sub> SIP conditions, including use of SO<sub>2</sub> CEMS monitoring systems and associated recordkeeping requirements. The revisions are acceptable because the new CEMS monitor sulfur emissions more comprehensively, providing a more accurate analysis of FHR's SO<sub>2</sub> emissions from the 41- and 45-unit mix drums. In a related revision, continuous monitoring requirements for H<sub>2</sub>S in SIP emission units have been revised to become total reduced sulfur, which is approvable because the new

monitors more comprehensively indicate SO<sub>2</sub> emissions from these units. It should be noted that H<sub>2</sub>S monitoring required for new source performance standards (NSPS) for petroleum refineries are not affected by these revisions as H<sub>2</sub>S monitoring will continue for these units in addition to the comprehensive sulfur monitoring described above.

-Removal of H<sub>2</sub>S CMS requirements from FHR's Title I SO<sub>2</sub> SIP, because the new SO<sub>2</sub> and total sulfur CEMS supersede the need for H<sub>2</sub>S CMSs for the facility and because the H<sub>2</sub>S monitor requirements will remain as non-SIP level requirements in order to meet the NSPS for petroleum refineries. Therefore, this revision is approvable.

-The H<sub>2</sub>S 3-hour rolling average limit for the 45H6 stack has been made a Title I SO<sub>2</sub> SIP condition, which is approvable because the condition becomes permanent and federally enforceable.

-Language has been removed from the SO<sub>2</sub> limits for the #1 Vac Heater, #1 Crude Heater atmospheric distillation unit, and #1 and #2 Coker Heaters that had indicated the limits were effective as of EPA's approval of the ninth revision to the Order (which EPA approved on May 15, 2013 at 78 FR 28501). Because the revision simply removes language that is no longer necessary, the revision is acceptable.

-The recordkeeping requirements for start and stop times for emissions units 032, 033, 037, and 038 (Steam/Air Heater

Decoking units 21H-1, 21H-2, 23H-1, and 23H-2, respectively) have been made Title I SO<sub>2</sub> SIP conditions. This is acceptable because it allows recordkeeping requirements for these units to be federally enforceable.

-The diesel fuel certification recordkeeping requirement for the plan air compressor diesel engine has been made a Title I SO<sub>2</sub> SIP condition, and a typo was corrected in the requirement. These revisions are approvable because it allows federal enforceability of recordkeeping to show FHR uses ultra-low sulfur diesel fuel in the plant air compressor diesel engine.

-An amendment to the requirements for the Oil Separation and Waste Treatment Plant to streamline the requirements for burning natural gas in conjunction with oxidation of gases from the treatment plant equipment. The revision does not decrease the stringency of the requirements but makes the requirements easier to understand, and is therefore acceptable.

-Requirements for Boiler B-10, including Title I SO<sub>2</sub> SIP conditions, have been removed from the FHR SIP because the boiler was never installed. This revision is acceptable because the source that the regulation is meant to address does not exist and will not exist.

### **III. What action is EPA taking?**

EPA is approving a revision to the SIP for FHR, as submitted by MPCA on May 1, 2015. The revision will consolidate

existing permanent and enforceable SO<sub>2</sub> SIP conditions into the facility's joint Title I/Title V SIP document and simultaneously remove the existing FHR Order from the SIP. We are publishing this action without prior proposal because we view this as a noncontroversial amendment and anticipate no adverse comments. However, in the proposed rules section of this Federal Register publication, we are publishing a separate document that will serve as the proposal to approve the state plan if relevant adverse written comments are filed. This rule will be effective **[insert date 60 days after date of publication in the Federal Register]** without further notice unless we receive relevant adverse written comments by **[insert date 30 days after date of publication in the Federal Register]**. If we receive such comments, we will withdraw this action before the effective date by publishing a subsequent document that will withdraw the final action. All public comments received will then be addressed in a subsequent final rule based on the proposed action. EPA will not institute a second comment period. Any parties interested in commenting on this action should do so at this time. Please note that if EPA receives adverse comment on an amendment, paragraph, or section of this rule and if that provision may be severed from the remainder of the rule, EPA may adopt as final those provisions of the rule that are not the subject of an adverse comment. If we do not receive any comments, this action

will be effective **[insert date 60 days after date of publication in the Federal Register]**.

#### **IV. Incorporation by Reference.**

In this rule, EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is finalizing the incorporation by reference of the Minnesota Regulations described in the amendments to 40 CFR part 52 set forth below. EPA has made, and will continue to make, these documents generally available electronically through [www.regulations.gov](http://www.regulations.gov) and/or in hard copy at the appropriate EPA office (see the FOR FURTHER INFORMATION CONTACT section of this preamble for more information).

#### **V. Statutory and Executive Order Reviews.**

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders

12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);

- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and



- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a "major

rule" as defined by 5 U.S.C. 804(2).

Under section 307(b) (1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[insert date 60 days after date of publication in the Federal Register]**. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. Parties with objections to this direct final rule are encouraged to file a comment in response to the parallel notice of proposed rulemaking for this action published in the proposed rules section of this Federal Register, rather than file an immediate petition for judicial review of this direct final rule, so that EPA can withdraw this direct final rule and address the comment in the proposed rulemaking. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b) (2) .)

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control,  
Incorporation by reference, Intergovernmental relations,  
Reporting and recordkeeping requirements, Sulfur oxides.

Dated: June 21, 2016.

Robert Kaplan,  
Acting Regional Administrator, Region 5.

40 CFR part 52 is amended as follows:

**PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS**

1. The authority citation for part 52 continues to read as follows:

**Authority:** 42 U.S.C. 7401 *et seq.*

2. In § 52.1220, the table in paragraph (d) is amended by revising the entry for “Flint Hills Resources Pine Bend, LLC” to read as follows:

**§ 52.1220 Identification of plan.**

\* \* \* \*

(d) \* \* \*

**EPA--APPROVED MINNESOTA SOURCE-SPECIFIC PERMITS**

Name of Source	Permit No.	State effective date	EPA approval date	Comments
* * * *	* *	*	*	
Flint Hills Resources Pine Bend, LLC	03700011-012	03/17/15	<u>[insert the date of publication in the Federal Register]</u> , [Insert Federal Register citation]	Only conditions cited as “Title I Condition: 40 CFR Section 50.4, SO2 SIP; Title I Condition: 40 CFR pt. 52, subp. Y”
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